

CLAIMS:

1. A wet process for manufacturing a cloth prepreg comprising
impregnating a woven fabric with a diluted resin and drying, which fabric has a
5 number of crossing points of warp and weft in the range of 2,000 to 70,000/m², which
process further comprises at least one of the steps (A) and (B), being
(A) the step of distributing on the fabric a plurality of binder elements of
linear configuration to fix the yarn flatness prior to impregnating the fabric with a
10 resin diluted with a solvent, at least 80% of which solvent is incompatible with the
binder and,
(B) the step of calendering the woven fabric after drying.
2. A process according to claim 1, which includes the step (A).
3. A process according to claim 1, which includes the step (B).
4. A process according to claim 1, which includes the steps (A) and
(B).
- 20 5. A process according to claim 1, wherein the fabric, either prior to or
subsequent to any calendering step (B), has a cover factor of 70% or more and
comprises yarns substantially free from twist.
- 25 6. A process according to claim 5, wherein the fabric has a cover factor
of at least 90%.
- 30 7. A process according to claim 2, wherein the number of crossing
points is in the range of 2,500 to 25,000/m² and the fabric has a cover factor of 90%
or more and warp and weft yarns substantially free from twist and having a width of 3
to 20 mm and a flatness defined by a ratio of yarn width to yarn thickness of 20 or

more.

8. A process according to claim 2, wherein the binder is imparted over at least the wefts.

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9. A process according to claim 2, wherein the binder is a coated binder on a low shrinkage fibre.

10. A process according to claim 2, wherein the binder is a nonwoven web.

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11. A process according to claim 2, wherein the binder is imparted in an amount of 0.5 to 15 g/m².

12. A process according to claim 2, wherein the binder comprises a nylon copolymer compatible with alcohol and the solvent comprises a non-alcohol type solvent.

20 13. A process according to claim 2, wherein the binder comprises a nylon copolymer incompatible with alcohol and the solvent comprises an alcohol type solvent.

25 14. A process according to claim 2, wherein the binder comprises a polyester and the solvent comprises an alcohol type solvent.

15. A process according to claim 1, wherein the drying is a hot air drying.

30 16. A process ascertaining to claim 15, wherein the fabric impregnated with the diluted resin passes through a hot air drying zone in which the hot air temperature in the first 1/4 of the hot air drying zone is below the boiling point of the

solvent.

17. A process according to claim 15, wherein the step (B) is carried out after the hot air drying.

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18. A process according to claim 1, wherein the resin is a thermosetting phenol resin.

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19. A process according to claim 1, wherein the woven fabric comprises a carbon fibre multi-filament yarn.

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20. A process according to claim 1, wherein the woven fabric comprises a multi-filament yarn having a number of filaments of 6,000 to 24,000.

21. A process according to claim 5 or claim 6, wherein the cover factor of the woven fabric is 97% or more.

22. A cloth prepreg comprising a woven fabric impregnated with a resin and having a binder distributed in a linear manner on the fabric to maintain yarn flatness, which fabric has a number of crossing points of warp and weft in a range of from 2,000 to 70,000/m², a cover factor of at least 90%, warp and weft yarns substantially free from twist and having a width of 3 to 20mm and a flatness as defined by a ratio of yarn width to yarn thickness of at least 20.

23. A cloth prepreg according to claim 22, wherein the number of crossing points of warp and weft is in a range of from 2,500 to 25,000/m².

24. A cloth prepreg according to claim 22, wherein the ~~fabric~~ ^{prepa} has a cover factor of at least 97%.

25. A cloth prepreg according to ~~any one~~ of claim 22, wherein the

number of the filaments of each of the warp and weft yarn is 6,000 or more, the respective woven densities of the warp and weft are substantially the same and the fabric is woven from carbon fiber so as to provide a carbon fibre weight of the woven fabric within the range of 140 to 240g/m².

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26. A cloth prepeg according to claim 22, wherein the average area of the openings between the warp and weft is 1.5 mm² or less.

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27. A cloth prepeg according to claim 26, wherein the openings between the warp and weft are substantially closed.

28. A cloth prepeg according to claim 22, wherein the resin is a thermosetting phenol resin.

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